membrane can be the outer and preferably the inner chloroplast membrane, wherein the polypeptide will serve to transport bicarbonate from the cytoplasm to the intermembranal space and the stroma, respectively. Transit peptides which function as herein described are well known in the art. Further description of such transit peptides is found, for example, in Johnson *et al.* The Plant Cell (1990) 2:525-532; Sauer *et al.* EMBO J. (1990) 9:3045-3050; Meuckler *et al.* Science (1985) 229:941-945; Von Heijne, Eur. J. Biochem. (1983) 133:17-21; Yon Heijne, J. Mol Biol. (1986) 189:239-242; Iturriaga *et al.* The Plant Cell (1989) 1:381-390; McKnight *et al.*, Nucl. Acid Res. (1990) 18:4939-4943; Matsuoka and Nakamura, Proc. Natl. Acad. Sci. USA (1991) 88:834-838. A recent textbook entitled "Recombinant proteins from plants", Eds. C. Cunningham and A.J.R. Porter, 1998 Humana Press Totowa, N.J. describe methods for the production of recombinant proteins in plants and methods for targeting the protcins to different compartments in the plant cell. The book by Cunningham and Porter is incorporated herein by reference. It will be however appreciated by one of skills in the art that a large number of membrane integrated proteins fail to possess a removable transit peptide. It is accepted that in such cases a certain amino acid sequence in said proteins serves not only as a structural portion of the protein, but also as a transit peptide.

A1 cont

In the claims:

Please cancel, without prejudice, claims 5, 7, 12, 17, 18, 24 and 25.

Please amend, without prejudice, claims 1, 2, 6, 8-10, 13, 16, 19-23, and 26-30 as follows:

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1. (Amended) A method of obtaining a photosynthetic plant characterized by enhanced inorganic carbon fixation, the method comprising:

A2

(a) transforming cells of photosynthetic plants with a nucleic acid construct including: